

IN THE UNITED STATES DISTRICT COURT FOR THE  
NORTHERN DISTRICT OF OKLAHOMA

W. A. DREW EDMONDSON, in his )  
capacity as ATTORNEY GENERAL )  
OF THE STATE OF OKLAHOMA and )  
OKLAHOMA SECRETARY OF THE )  
ENVIRONMENT C. MILES TOLBERT,) )  
in his capacity as the )  
TRUSTEE FOR NATURAL RESOURCES) )  
FOR THE STATE OF OKLAHOMA, )  
 )  
Plaintiff, )  
 )  
vs. ) 4:05-CV-00329-TCK-SAJ  
 )  
TYSON FOODS, INC., et al, )  
 )  
Defendants. )

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VOLUME II OF THE VIDEOTAPED  
DEPOSITION OF BERTON FISHER, PhD, produced as a  
witness on behalf of the Defendants in the above  
styled and numbered cause, taken on the 4th day of  
September, 2008, in the City of Tulsa, County of  
Tulsa, State of Oklahoma, before me, Lisa A.  
Steinmeyer, a Certified Shorthand Reporter, duly  
certified under and by virtue of the laws of the  
State of Oklahoma.

EXHIBIT

tabbles

1 in the plant matter and actually transport it and  
2 deposit it as more soluble phosphorus in manure in  
3 or near water courses?

4 MR. GARREN: Object to form.

5 Q That's not part of your evaluation? 11:50AM

6 A It is not.

7 Q Let's see. Your report, Page 4, you covered  
8 this with Mr. George yesterday. You said the only  
9 contaminants of concern in the Illinois River  
10 watershed are phosphorus and bacteria; correct? 11:51AM

11 A That's what I said, yes.

12 Q All right. What is the form of phosphorus  
13 that is the contaminant of concern?

14 A All forms of phosphorus are going to be the  
15 contaminant of concern because phosphorus undergoes 11:51AM  
16 numerous reactions with environmental media. So  
17 adding phosphorus in one form today, it can turn  
18 into a form that's taken up by algae tomorrow in a  
19 stream.

20 Q With the bulk of the water quality data, is 11:51AM  
21 this most oftenly expressed as total P?

22 A That's correct.

23 Q Okay. So when -- there have been a lot of  
24 discussion in the last two days about phosphorus,  
25 phosphorus, phosphorus. What typically you and 11:51AM

1 have to make an application report. I'm not sure of  
2 the licensure requirements if you are applying waste  
3 to your own land.

4 Q Okay.

5 A In Arkansas, I am not familiar enough with  
6 that state's regulatory structure to have an  
7 opinion, but it's possible.

01:26PM

8 Q Is all the poultry litter that is applied in  
9 this day and time in the Illinois River watershed  
10 subject to rules or regulations in either Oklahoma  
11 or Arkansas depending on where the land is?

01:26PM

12 MR. GARREN: Object to form.

13 A I believe that at the present time that is  
14 true.

15 Q All right. Are you aware of any circumstance,  
16 Dr. Fisher, where poultry litter has been land  
17 applied in the Illinois River watershed in  
18 violations of the provisions of that landowner's  
19 nutrient management plan or animal waste management  
20 plan?

01:27PM

01:27PM

21 MR. GARREN: Object to form.

22 A I know of none, but there's also no way of  
23 truly checking that.

24 Q Now, in your report at Page 13 where you go  
25 into your history discussion of the defendants, you

01:27PM

1 Peterson Farms, Inc., the corporation, has land  
2 applied poultry litter in the Illinois River  
3 watershed?

4 A I've only identified some locations where  
5 material from Peterson's contract growers has been  
6 applied within the Illinois River watershed.

01:30PM

7 Q Have you identified any location where  
8 Peterson Farms, Inc., the corporation, has stored or  
9 stockpiled poultry litter in the Illinois River  
10 watershed?

01:30PM

11 A I have not.

12 Q The photograph that you produced, and it was  
13 discussed briefly yesterday. I might be able to  
14 point it to you. I think it's Figure 3.

15 A I think that's right. Yes, it is.

01:30PM

16 Q All right. You said disposal of poultry waste  
17 from Peterson Circle Farms. What is Peterson Circle  
18 Farms, sir?

19 A Peterson Circle Farms to my knowledge is a  
20 contract grower for Petersons.

01:31PM

21 Q Okay. So the name of the facility is not  
22 Peterson Circle Farms?

23 A Well, that's what the name says on the sign,  
24 Peterson Circle Farms.

25 Q Okay. You understand that throughout poultry

01:31PM

1 company, the contract growers have a sign indicating  
2 the integrator they happen to contract with that may  
3 say Tyson or Simmons or George's or Petersons;  
4 right?

5 MR. GARREN: Object to form.

01:31PM

6 Q Then they have the farm name on it?

7 MR. GARREN: Same objection.

8 A I'm just reporting what's on the sign.

9 Q All right. Well, let's be clear. Are you  
10 representing in your report or do you intend to

01:31PM

11 represent that this farm is owned or managed by  
12 Peterson Farms, Inc.?

13 A No.

14 Q Is it your intention to represent or suggest  
15 to the jury that what is depicted in this photograph  
16 is a land application being conducted by Peterson  
17 Farms, Inc.?

01:31PM

18 A No.

19 Q Okay, and I think this photograph came up  
20 yesterday when you were talking to Mr. George about  
21 whether any specific land application had been  
22 directly linked to any particular location where  
23 water pollution had been identified. This land  
24 application that's depicted in Figure 3 of your  
25 report, were there edge of field samples taken from

01:32PM

01:32PM

1 that field?

2 A I can't recall as we sit here at this moment.

3 Q All right. Can you tell me whether you or  
4 anyone else on the plaintiff's expert team to your  
5 knowledge has drawn a direct correlation between  
6 this land application depicted in Figure 3 and any  
7 specific water contamination in the Illinois River  
8 watershed?

01:32PM

9 MR. GARREN: Object as to form.

10 A I don't know at this time.

01:32PM

11 Q Is there anything -- strike that. Okay. Sir,  
12 would you turn to Page 46 of your report, please.  
13 The top of the page, do you see the sentence that  
14 begins as shown in Figure 14?

15 A Yes.

01:33PM

16 Q All right. Just so we're clear, this is part  
17 of your statement of your Opinion No. 19, and you  
18 say, as shown in Figure 14, soils more susceptible  
19 to runoff dominate in the eastern and western  
20 portions of the Illinois River watershed, while  
21 soils that are more susceptible to infiltration  
22 dominate in the central portion of the Illinois  
23 River watershed; correct?

01:33PM

24 A That's correct.

25 Q All right. Let's look at Figure 14. All

01:34PM

1 relevant to your analysis in this case?

2 A You'll have to explain that question.

3 Q Are the limits for certain constituents in  
4 certain waters set forth by the State of Oklahoma or  
5 the U.S. Environmental Protection Agency, are they  
6 relevant to your opinions in this case?

12:01PM

7 A I don't think so.

8 Q All right, and in an edge of field sample,  
9 what level of phosphorus in an edge of field sample  
10 would designate it as polluted or contaminated with  
11 phosphorus?

12:01PM

12 A Edge of field sample -- I mean, level with  
13 respect to --

14 Q If I take an individual edge of field sample,  
15 analyze it and I look at the lab reports, what  
16 criteria would I look at when looking at the  
17 phosphorus data to tell me whether that sample is  
18 polluted with phosphorus?

12:01PM

19 A I don't offer any opinions saying that the  
20 edge of field material is polluted per se. This is  
21 a pathway analysis looking from the fields to the  
22 edge of field and on into streams. I don't believe  
23 I said that it was polluted. I mean, it's  
24 containing materials that are being translocated  
25 from fields. To the extent phosphorus, for example,

12:01PM

12:02PM

1 its primary body contact recreation criteria; what  
2 types of body waters?

3 A In streams for people that have primary  
4 contact.

5 Q Okay, and people don't have primary water body 12:04PM  
6 contact in bar ditches?

7 MR. GARREN: Object to form.

8 A I think that that might be a little overbroad.  
9 I've had personal body contact in a bar ditch.

10 Q Primary -- I'm not saying that you might 12:05PM  
11 incidentally get wet, Dr. Fisher. Okay? It's  
12 not -- this is a recreational standard. Have you  
13 ever recreated in the water in a bar ditch?

14 A No.

15 Q Thank you. Is it true that runoff water from 12:05PM  
16 an agricultural field that's never received poultry  
17 litter will contain phosphorus and bacteria?

18 A It may contain bacteria. It's very likely to  
19 contain phosphorus. It's almost certain to contain  
20 some kind of bacteria. If you mean by enteric 12:05PM  
21 bacteria, it might not.

22 Q The -- now, in the case of geoprobe samples --  
23 take just a minute for the benefit of the jury and  
24 explain what a geoprobe sample is.

25 A Geoprobe sample is so-called direct push 12:05PM



1 Q Okay, and telling me it's not extreme  
2 expertise is not particularly helpful. Is it an  
3 area of expertise; will you present yourself to the  
4 court in this matter as an expert in this field  
5 because if so, I need to know how you are going to  
6 qualify yourself to do so.

02:06PM

7 A Well, I'm not an expert in microbial  
8 contamination -- well, I'm not an expert in  
9 bacteriology, and I'm not an expert in -- what am I  
10 not an expert in? I certainly would intend to  
11 testify if asked concerning numbers of bacteria in  
12 environmental samples.

02:07PM

13 Q Well, that's not an expert opinion. That's  
14 reading a lab sheet; correct?

15 A That's reading a lab sheet.

02:07PM

16 Q All right. You are not going to be the person  
17 who will offer testimony that there is fecal  
18 contamination of any waters in the Illinois River  
19 watershed that derives from poultry litter?

20 A That's correct.

02:07PM

21 Q And that's because you've not conducted your  
22 own analysis to prove that bacteria from poultry  
23 litter has reached surface or groundwater in the  
24 Illinois River watershed?

25 A I've not done that work.

02:08PM

1 contaminate the Roubidoux aquifer.

2 Q What's the depth?

3 A Well, I don't have the specific depth because  
4 it's somewhat variable.

5 Q All right. Have you identified any location 02:24PM  
6 in the Illinois River watershed where you have  
7 proven that contaminants that came from poultry  
8 litter have polluted any deep aquifer?

9 MR. GARREN: Object to form.

10 A No. 02:24PM

11 Q So in this paragraph, if I understand your  
12 statement, you state that it can happen but you have  
13 not specifically proven that it has in fact  
14 happened?

15 MR. GARREN: Object to form. 02:24PM

16 Q Is that a correct characterization?

17 A That's correct.

18 Q Now, through your own work and analysis, can  
19 you identify any specific groundwater well that has  
20 been contaminated with bacteria that came from 02:24PM  
21 poultry litter?

22 A I think that that -- in terms of making that  
23 assessment, that would need to be an opinion offered  
24 by Drs. Harwood or Teaf or possibly Dr. Olsen.

25 Q Okay. So the question was whether through 02:25PM

1 your own work have you identified any groundwater  
2 well that has been contaminated with bacteria from  
3 poultry litter. Is the answer no?

4 A No. My work has been focused on looking at  
5 the potential for bacterial hazard and evaluating a  
6 bit of the data concerning evidence that may suggest  
7 that it is.

02:25PM

8 Q Okay, but you can't point to any well and say  
9 there's bacteria there and I can show you it came  
10 from poultry litter?

02:25PM

11 A I might be able to tell you -- point to a well  
12 and tell you there's bacteria there, and I could  
13 probably point to well and tell you it's probably  
14 from poultry litter, but I can't do it right now.

15 Q Okay, and that isn't -- those aren't opinions  
16 you've developed as of today?

02:26PM

17 A Well, it's not an opinion that's expressed in  
18 here as to a specific well.

19 Q Okay. Did you conduct any analysis to  
20 determine the potential impacts on groundwater from  
21 septic systems in the Illinois River watershed?

02:26PM

22 MR. GARREN: Object to form.

23 A No.

24 Q Do you know how many active septic systems  
25 there are in the watershed?

02:26PM

1 Q All right. How many edge of field samples  
2 were collected from fields you actually had sampled  
3 the soil in the pasture?

4 A Very few. I can't give an accurate number on  
5 that.

03:15PM

6 Q All right. So when you overlay litter samples  
7 with soil samples with edge of field samples, the  
8 fact of the matter is you don't have any of those  
9 samples at the same place where you tracked the  
10 litter to the soil to the edge of field and then  
11 you're looking at the plots of that; you haven't  
12 done that, have you?

03:16PM

13 MR. GARREN: Object to form.

14 A No, and you wouldn't need to in looking at  
15 this as a population.

03:16PM

16 Q Because on a field-by-field basis, that's not  
17 relevant to your evaluation?

18 MR. GARREN: Object to form.

19 A It is not.

20 Q When you look at Figure 19, you'd agree that  
21 as it relates to phosphorus, zinc, copper and  
22 arsenic, that there's no fingerprint involving those  
23 constituents that would characterize edge of field  
24 runoff in the Illinois River watershed; correct?

03:16PM

25 MR. GARREN: Object to form.

03:17PM

1     seemed to be arrayed somewhere in the middle, and  
2     the edge of field samples have the highest  
3     concentration of phosphorus, within the data array,  
4     not showing that every sample is higher than all the  
5     others.

03:35PM

6     Q       If -- I need you to explain what the term  
7     blend seamlessly means in the context of Opinion 24.

8     A       If you --

9           MR. GARREN: Object to form.

10    A       This does not appear to be two different

03:35PM

11   compositional datasets. If, for example, the  
12   groundwater had no relationship at all to edge of  
13   field samples, I would not anticipate that the edge  
14   of field samples would blend into that, that they  
15   would go somewhere else. It says these are pretty  
16   clean, these are pretty dirty. Dirty goes into  
17   clean, and there are some materials that are -- seem  
18   to be present in this intermediate range. So these  
19   indicate some contamination of groundwater. That's  
20   what I'm talking about by blend seamlessly. We  
21   don't have distributions, and it's especially clear  
22   with the zinc, the copper plot.

03:36PM

03:36PM

23   Q       Now, you've not connected any location you  
24   contend is polluted by poultry litter back to the  
25   operations or actions of any specific Peterson Farms

03:36PM

1 contract grower, have you?

2 A I have not.

3 Q And as it relates to all the other defendants

4 in this case, you've not connected any location you

5 contend is polluted by poultry litter back to the

03:37PM

6 operations of any of their contract growers?

7 A Okay. I can relate some edge of field samples

8 to some contract growers for everyone. I may have

9 misanswered your first question, but is that --

10 Q Any location that you contend is polluted by

03:37PM

11 poultry litter, I want to know if you have related

12 any of those locations, if you connected them back

13 to the operations of any specific contract grower.

14 A With respect to the litter application

15 locations, yes, since the source of the poultry

03:37PM

16 litter there is known. With respect to some of the

17 edge of field samples, the answer would be yes,

18 although I've not presented that information in this

19 report, but it's certainly present in my considered

20 materials, since in some instances the origin of the

03:38PM

21 poultry waste that was disposed in the field from

22 which the edge of field sample was collected is no.

23 Q Have you connected the pollution of any waters

24 of the state of Oklahoma back to the actions of any

25 contract grower for any defendant in this case?

03:38PM

IN THE UNITED STATES DISTRICT COURT FOR THE  
NORTHERN DISTRICT OF OKLAHOMA

W. A. DREW EDMONDSON, in his )  
capacity as ATTORNEY GENERAL )  
OF THE STATE OF OKLAHOMA and )  
OKLAHOMA SECRETARY OF THE )  
ENVIRONMENT C. MILES TOLBERT,) )  
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Defendants. )

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VOLUME I OF THE VIDEOTAPED  
DEPOSITION OF BERTON FISHER, PhD, produced as a  
witness on behalf of the Defendants in the above  
styled and numbered cause, taken on the 3rd day of  
September, 2008, in the City of Tulsa, County of  
Tulsa, State of Oklahoma, before me, Lisa A.  
Steinmeyer, a Certified Shorthand Reporter, duly  
certified under and by virtue of the laws of the  
State of Oklahoma.

EXHIBIT

tabbles

2

1 that the bulk of the waste is disposed of really  
2 close, but the data says that not all of it is. So  
3 something like 30 percent is disposed of within the  
4 same section, and 60 percent, I think that's right,  
5 60 percent is disposed of within two miles and  
6 something like 80 percent within five miles. So if  
7 some -- there can be contributions of poultry waste  
8 even in areas with no chicken houses, but it would  
9 be at least, under that theory, relatively low, but  
10 it says that we can't say, gee, there's nothing but  
11 non-chicken there and in chicken -- the basins with  
12 chicken houses, you can't say it's only from  
13 chickens. I think that's accurate.

10:17AM

10:17AM

14 Q So even with respect to the basins that have a  
15 high density of poultry houses, you would agree that  
16 the sampling data drawn from those high flow  
17 stations would reflect contributions from other  
18 sources?

10:17AM

19 A That's correct, and the interpretation of that  
20 information, however, is you really can't think of  
21 this purely as a binary-type thing, whether it's  
22 only chicken or only something else. You need to  
23 take a look at the relative -- relevant potential  
24 contributions within the watershed as a whole, and  
25 then to the extent you can do that, within these

10:17AM

10:18AM



1 subwatersheds. So more chickens, more phosphorus.

2 I think that's quite accurate, but you can't say  
3 that all the phosphorus comes from chickens, nor do  
4 we I don't believe.

5 Q Let me hand you what we'll mark as Exhibit 9,  
6 which is an E-mail from your considered materials  
7 dated July 20th and then July 21st of 2005, and I  
8 want to focus on the beginning of the chain, which  
9 is an E-mail from Ron French to David Page and Roger  
10 Olsen, which was subsequently forwarded to yourself.

10:18AM

10:19AM

11 Do you see that E-mail?

12 A It says from David Page to French and Roger  
13 Olsen, right, and then that's -- let's see if I  
14 understand. Oh, the first one is on the last page.

15 Q That's correct. Read from the bottom up.

10:19AM

16 A Yeah. Strangely I do know to do that but  
17 failed to. Ron French sends this note to David Page  
18 and Roger Olsen with respect to Peter Thomas.

19 Q Right, and that E-mail subsequently gets  
20 forwarded to you. Do you see that?

10:19AM

21 A Yeah, I do see that.

22 Q Okay. Who is Dr. Peter Thomas?

23 A I identified him before. Peter Thomas is  
24 talking here about endocrine studies. My  
25 recollection is he was -- he talked about

10:19AM

1 your notations of a site visit on August 29th of  
2 2008 tell us about whether cattle were present  
3 before or at the time the actual edge of field  
4 sample was collected?

5 A They tell me that there were no cattle present  
6 on August 29th. They tell me nothing about the time  
7 of actual collection.

10:35AM

8 Q You don't have, other than the original field  
9 notebooks, any data or information regarding the  
10 presence or absence of cattle at the time the edge  
11 of field samples were collected; right?

10:35AM

12 A That's correct. To my knowledge, that's  
13 correct.

14 Q Why did you make a deliberate attempt in the  
15 field notes from your site visits this past weekend  
16 to note the presence or absence of cattle?

10:35AM

17 A Well, I thought that the presence or absence  
18 of cattle would be of interest, although the cattle  
19 themselves are pretty much just recycling poultry  
20 waste on these fields. Whether or not they're

10:36AM

21 present seems to be an issue in this matter and at  
22 least in August of -- in the end of August of this  
23 year a fairly small percentage of these locations  
24 had cattle present or at least observable when I was  
25 there.

10:36AM

1 MR. GARREN: Object to form.

2 A The answer to that is based upon consideration  
3 of work done by University of Arkansas experts and  
4 on my observations, yes.

5 Q The University of Arkansas experts studied 10:38AM  
6 these fields?

7 A You're speaking about specific fields.

8 Q That's right.

9 A And specific fields would have to be  
10 reflective of some of the average behavior within 10:38AM  
11 the entire watershed.

12 Q What did you do to investigate these specific  
13 fields to determine whether or not the nutrients  
14 being deposited by cattle were merely recycled  
15 nutrients from poultry litter? 10:38AM

16 A There was no need to do anything to do that.

17 Q You didn't do anything, did you?

18 A Well, there's no need to. You don't see any  
19 feeding stations. You didn't see any feed lots.

20 Q Did you talk with the landowners regarding 10:38AM  
21 their use of commercial fertilizers?

22 A No.

23 Q Do you agree that nutrients on a pasture can  
24 derive from commercial fertilizer as well as poultry  
25 litter; correct? 10:38AM

1 have evidence poultry litter from that farm has been  
2 land applied in the watershed?

3 A I believe there are Tyson facilities in which  
4 that is true.

5 Q Which Tyson facilities? 10:47AM

6 A Have operated within the watershed. Do I have  
7 specific records of them disposing? I have records  
8 from some of them. I can't identify exactly which  
9 ones at this time, but I could look in my records  
10 and find them, of waste management plans which 10:47AM  
11 involve disposal within the watershed.

12 Q From company-owned or company-operated farms?

13 A Yes.

14 Q Let me ask the question one more time, and I  
15 understand you're limited to what you know at this 10:48AM  
16 moment, and if you can direct me to a record, I'd  
17 appreciate it. If you can't, then I'll move on. As  
18 we sit here today, Dr. Fisher, can you identify a  
19 single instance in which a poultry farm operated or  
20 managed by one of the named integrators in this case 10:48AM  
21 has had litter from that farm land applied in the  
22 watershed?

23 MR. GARREN: Object to form.

24 A Okay. The evidence that I have of that --  
25 well, for a specific farm, no. 10:48AM

1 poultry farmer who contracts with Tyson or  
2 Cobb-Vantress for which you can show runoff of  
3 poultry litter into a stream, river or lake?

4 A I believe we can with respect to the edge of  
5 field work that was conducted in which we were able  
6 to identify specific origins of waste and specific  
7 locations of waste, such that we could achieve or  
8 collect an edge of field sample from that locality  
9 because that shows runoff that's heading into a  
10 drainage and going on into a stream and once it's in  
11 the stream, it heads on into the lake, so there are  
12 those instances. I've not -- I can't sit here and  
13 tell you it's Joe Blow from this farm right today.

10:55AM

10:55AM

14 Q As you sit here today, you cannot identify a  
15 single poultry farmer who contracts with Tyson or  
16 Cobb-Vantress for which you can show runoff into a  
17 stream, river or lake; correct?

10:56AM

18 A The data is in my records.

19 Q Can you go ahead and answer my question? As  
20 you sit here today, you can't identify such a  
21 grower?

10:56AM

22 A As I sit here today, I can't recall the  
23 identity of such a grower.

24 Q If I were to ask that same question for each  
25 of the other poultry companies that are named as

10:56AM

1 defendants in this lawsuit, would the answer be the  
2 same?

3 MR. GARREN: Object to form.

4 A I'm not sure. I think it might not be the  
5 same with respect to Peterson, and that's simply  
6 because there's a photograph that's produced in my  
7 reports showing waste disposal that is associated  
8 with a specific Peterson grower.

10:56AM

9 Q Does your photograph show runoff from that  
10 particular location into a stream, river or lake?

10:57AM

11 A The photograph does not but -- and I need to  
12 look at the information, but there may well be other  
13 data that does.

14 Q What would that other data be?

15 A If it exists -- I'll have to look to see if it  
16 does -- it would be edge of field information.

10:57AM

17 Q Was there an edge of field sample collected at  
18 the location described in -- I believe you are  
19 referring to the photograph in Figure 3 of your  
20 report?

10:57AM

21 A That's correct. I don't know. I'd have to  
22 review that because the nomenclature here is  
23 different. I'll have to look at the specific  
24 location. I've not done that specifically here.

25 That would be work I would intend to do, by the way,

10:57AM

1 would be to clean up some of the specifics.

2 Q Work you would intend to do?

3 A Yeah. The data already exists, but when you

4 ask me can I associate individual integrators or

5 contract growers, associate with individual

10:58AM

6 integrators and runoff, then I would intend to do

7 that work. That data is existing.

8 Q Let's close the loop on this line of

9 questioning, if I can. With the exception of your

10 comment about the photograph in Figure No. 3, can

10:58AM

11 you identify a single poultry farmer who contracts

12 with any of the other integrators named in this

13 lawsuit that would show runoff of poultry litter

14 into a stream, river or lake?

15 MR. GARREN: Object to form.

10:58AM

16 A Okay. Not without review of my base data, not

17 as I sit here today.

18 Q Okay, and the way you would make that showing

19 would be to review edge of field samples; do I

20 understand that correctly?

10:58AM

21 A No, not completely.

22 Q Okay. Well, tell me how you would go about

23 that.

24 A With respect to individual farms, the most

25 specific information is to review the investigator

10:59AM

1 data to find those locations where there was a known  
2 specific origin for poultry waste that was disposed,  
3 that is, the poultry waste was tracked from its  
4 point of origin to its point of land disposal, and  
5 then cross correlate that with the edge of field

10:59AM

6 samples and look at the edge of field samples in  
7 relationship to named streams, for example, or even  
8 unnamed streams, how does that relate to the  
9 drainage pattern within the area, but bottom line is  
10 it's going to be investigator data, edge of field  
11 samples would be the clearest path.

10:59AM

12 Q As you sit here today, Dr. Fisher, you've not  
13 undertaken that analysis, have you, to track runoff  
14 from poultry litter from a particular site to a  
15 stream to the lake; correct?

10:59AM

16 MR. GARREN: Object to form.

17 Q Have you done that?

18 A Well, I certainly have collected the data to  
19 do that.

20 Q Well, my question is whether you have  
21 completed that analysis.

11:00AM

22 A I have not completed that analysis.

23 Q Okay. Has any expert to your knowledge  
24 undertaken that analysis to actually track runoff  
25 from the edge of field location where litter has

11:00AM



1 been applied to a stream or the lake?

2 A In the sense of doing a causation pathway  
3 analysis as Roger Olsen has done, yes. In terms of  
4 looking at a single field all the way to a stream or  
5 lake, no.

11:00AM

6 Q Okay. Now, with respect to edge of field  
7 samples, you'll agree with me that the mere fact  
8 that a constituent has run off of a pasture and been  
9 collected in an edge of field sample does not  
10 guarantee that that constituent reaches a stream,  
11 the Illinois River or Lake Tenkiller; correct?

11:00AM

12 A It says that constituent is on its way in that  
13 direction.

14 Q Do they all get there?

15 A They all get there eventually.

11:01AM

16 Q They all get there? Everything that runs off  
17 the edge of the field eventually makes its way to  
18 Lake Tenkiller; is that your opinion?

19 A I would say that everything that runs off the  
20 edge of a field ultimately gets into drainage  
21 because it --

11:01AM

22 Q My question --

23 A There's some fraction that does.

24 Q Some fraction from every field or some  
25 fraction from all of the fields?

11:01AM

1 escapes from that field into a drainageway, then  
2 it's on its way to Lake Tenkiller at some point.

3 Q But you've not done anything to test your  
4 theory that all edge of field runoff makes it to a  
5 stream, river or lake with respect to a specific  
6 field; is that correct?

11:03AM

7 A With respect to a specific field, no, but I  
8 just hasten to add when it rains, the rivers seem to  
9 rise and the ditches seem to be filled and waste is  
10 running off fields. I'm not sure how I see that  
11 doing it from any given field is significant in that  
12 regard.

11:03AM

13 Q So since it's not significant, you didn't  
14 undertake that analysis; is that right?

15 MR. GARREN: Object to form.

11:03AM

16 A Trying to -- I don't think there's any purpose  
17 in looking at an individual field.

18 Q Okay. Can you identify a single poultry  
19 farmer who contracts with Tyson or Cobb-Vantress for  
20 which you can show that surface applications of  
21 poultry litter have traveled through the soil and  
22 contaminated groundwater in the Illinois River  
23 watershed?

11:03AM

24 A I can't give you a name today.

25 Q If I ask that same question with respect to

11:03AM

1 in addition it could also include official records  
2 maintained by government agencies pertaining to  
3 specific waste location disposal. It would also  
4 pertain to investigator information that I have in  
5 my possession. So it's broader than just nutrient  
6 management plans. I was thinking prior to the  
7 collection of more detailed information.

11:26AM

8 Q Based on that -- I'm sorry, were you through?

9 A Yes.

10 Q I didn't mean to cut you off.

11 A I think I am through.

12 Q Based on the broader universe of documents  
13 that you've described, sir, can you identify for me  
14 any location within the watershed where poultry  
15 litter that originated on a company-owned or  
16 company-managed farm associated with any of the  
17 defendants named in this lawsuit has actually been  
18 land applied?

11:27AM

19 A As I sit here today, no. Once I've reviewed  
20 those records I've identified, I will be able to do  
21 that.

11:27AM

22 Q Because you believe there are instances of  
23 that in the records?

24 A I do.

25 Q To the extent that information is shown in the

11:27AM

1 A No.

2 Q Okay. So how did you account for the  
3 real-world differences between different feed  
4 ingredients that can affect the composition in your  
5 fingerprint analysis in this case?

03:19PM

6 A Well, in the real world, these materials are  
7 disposed of in field and are mixed in the  
8 environment, and so in the real world some of the  
9 key things to look at in this chain are what are  
10 added to feeds. What are added to feeds are copper  
11 and zinc salts, and those copper and zinc salts seem  
12 to be present at a reasonably consistent ratio of  
13 about one to one by mass copper to zinc. That's  
14 important.

03:19PM

15 Arsenic may not be sourced from Tyson's  
16 current waste, but in the past may have been, and  
17 certainly is sourced from others' waste. So the  
18 presence of somewhat elevated levels of arsenic is  
19 indicative of poultry waste. So my analysis would  
20 be looking at what's in the feed, what's in the  
21 waste, what's in the environment and how do those  
22 ratios compare and where there are differences, are  
23 those differences explainable by chemical process.

03:19PM

03:20PM

24 Q Your fingerprinting opinions and source  
25 identification opinions are directed at poultry

03:20PM

1 litter as a class; is that fair?

2 A That's correct.

3 MR. GARREN: Object to form.

4 Q You've not attempted to identify a chemical  
5 fingerprint for poultry litter specific to any one  
6 of the individual defendants named in this lawsuit?

03:20PM

7 A That's accurate.

8 Q On Page No. 38, I think you are making a  
9 statement with the comparison of the CDM data to the  
10 Eucha-Spavinaw data in Table 11. Do you see the  
11 paragraph directly above the chart?

03:21PM

12 A Yes.

13 Q And you say that the CDM poultry waste data is  
14 comparable to and statistically not different from  
15 analytical data for moisture, calcium, total  
16 nitrogen, total potassium, total phosphorus and  
17 total water soluble phosphorus for poultry waste  
18 samples obtained in support of nutrient management  
19 plans in the Eucha-Spavinaw watershed. Do you see  
20 that?

03:21PM

03:21PM

21 A Yes.

22 Q Okay. What does that mean?

23 A Well, just what it says. It says that if I  
24 apply a parametric statistical test to test for the  
25 difference between two means or two averages, that I

03:21PM

1 A Okay. Well, I'm not offering an opinion that  
2 poultry waste is or is not the source of  
3 contamination in a particular sample.

4 Q Oh, you're not?

5 A I have never offered that opinion. 04:14PM

6 Q Maybe I misunderstood. I thought your  
7 Opinions 21 through 28 were that the samples that  
8 you're discussing are -- reflect contamination from  
9 poultry waste. Is that not your opinion?

10 A That's correct, they do, but we're looking -- 04:14PM  
11 this is a population, not at individual samples.

12 Q So you can't tell me with respect to any  
13 individual sample, based on your ratio analysis, if  
14 that sample and the concentrations of phosphorus,  
15 arsenic, zinc and copper in that sample is the 04:14PM  
16 product of contamination of poultry waste?

17 A Well, I didn't say that either. I said we're  
18 looking at a population. Perhaps we should look at  
19 a population.

20 Q Sure. Which one? 04:14PM

21 A Look at Figure 24, which is what you were  
22 talking about, stream sediments. Stream sediments  
23 are showing behavior of materials.

24 Let's go through the issues here. There are  
25 two end members. Let's look at the zinc to 04:15PM

1     compromise dots.

2     Q       So you still haven't answered my basic  
3     question, Dr. Fisher, which is how far off the line  
4     does it have to be before you will acknowledge that  
5     it is a stream sediment that is affected by  
6     something other than poultry waste?

04:23PM

7             MR. GARREN: Object to form.

8     A       I don't have a specific criterion, aside from  
9     judgment as a geochemist and looking at this. You  
10    could, for example, say this point here in which -  
11    which doesn't by the size of its dot intersect the  
12    line, you could take that one away, too, if you  
13    wanted or not, okay, but you're looking at the  
14    behavior of the population. Okay? This is not a --  
15    what is it not? It's not something that looks at  
16    specific numeric criteria.

04:23PM

04:23PM

17    Q       So this is your own subject opinion as to how  
18    far off the line it needs to be before it is  
19    contaminated by poultry waste as opposed to some  
20    other source?

04:23PM

21             MR. GARREN: Object to form.

22    A       I'm not saying that any individual point. I  
23    make no statement here in this report as to whether  
24    or not specific samples represent contamination by  
25    poultry waste. We're looking at population

04:24PM

1 behavior. The populations are behaving at least  
2 with respect to phosphorus, zinc and copper in  
3 stream sediments as if we're looking at a mixture  
4 between a clean material or material that's  
5 unimpacted and the end member, which we know to be  
6 poultry waste.

04:24PM

7 Q Let's go about it this way: Dr. Fisher, can  
8 you identify for me on Figure 24 any stream sample  
9 that you have plotted here that you are willing to  
10 opine is to the best of your scientific judgment  
11 impacted or contaminated by poultry waste?

04:24PM

12 A Again, I've not made that determination with  
13 respect to individual samples. I'm looking at the  
14 behavior of the population, and so I'm unprepared to  
15 give you any opinion concerning any specific sample  
16 other than to say that those samples that are  
17 displaying strong enrichments in copper, which I  
18 circled on this diagram, are behaving oddly and  
19 might be suspect.

04:24PM

20 Q Dr. Fisher, I assume the answer would be the  
21 same if I asked you to identify from any of your  
22 other figures specific lake sediment samples or soil  
23 samples that you believe are contaminated by poultry  
24 waste?

04:25PM

25 MR. GARREN: Object to form.

04:25PM



1     contamination from poultry litter?

2             MR. GARREN: Object to form.

3     A        I don't know how many fields. We've collected  
4     them here from 73 locations, and there may be  
5     multiple locations per field.

04:31PM

6     Q        And is it your opinion, sir, that all 73 of  
7     the locations that you've collected data on are  
8     contaminated by poultry waste?

9     A        I really don't offer an opinion about any  
10    specific location.

04:32PM

11    Q        So you can't point the court to any particular  
12    field where poultry waste has been applied that you  
13    would say is contaminated?

14    A        Well, no, that's not true. I would say if the  
15    amount of phosphorus that's present in the soil, the  
16    Mehlich III phosphorus, exceeds the agronomic rate,  
17    which sort of depends on what you want to call it,  
18    whether it's 65 pounds per acre or 100 pounds per  
19    acre or 125 pounds per acre, if it exceeds that  
20    amount, it's contaminated with phosphorus, and if  
21    it's receiving that phosphorus from poultry waste,  
22    then it's contaminated by poultry waste  
23    constituents.

04:32PM

04:32PM

24    Q        So you define contamination as anything in  
25    excess of the agronomic rate?

04:32PM

1 consistent with mixing cleaner materials with  
2 poultry waste.

3 Q That's what you were trying to convey in  
4 Opinion 22?

5 A Yeah.

04:34PM

6 Q Okay. The reason I got hung up is in the  
7 lead-in sentence you say that soils to which poultry  
8 waste has been applied are contaminated. Do you see  
9 that?

10 A I would agree with that, that's correct.

04:34PM

11 Q Which soils?

12 A Well, I'm not identifying individual soils.  
13 I'm saying that as a population, it's consistent  
14 with contamination by poultry waste. I could review  
15 that data with respect to the criteria that we've  
16 just discussed and give you that example, but I was  
17 not looking at Mehlich III phosphorus when I did  
18 this work, total phosphorus.

04:34PM

19 Q As we sit here today, Dr. Fisher, you cannot  
20 identify a single field that meets your criteria for  
21 contamination with phosphorus from poultry waste;  
22 correct?

04:34PM

23 MR. GARREN: Object to the form.

24 A I'm not sure that that's an accurate  
25 characterization. As I sit here, I can't say if I

04:35PM

1 go to this particular location, it's contaminated,  
2 but I do know from looking at this data that with  
3 very little effort, I could identify a whole series  
4 of fields that are contaminated.

5 Q Why didn't you do that?

04:35PM

6 A Because that wasn't really of great interest  
7 to me. What is of interest to me is the behavior of  
8 the population of soils with respect to their  
9 receipt of poultry waste and how the chemistry of  
10 those soils vary.

04:35PM

11 Q So, Dr. Fisher --

12 A I'm sorry.

13 Q Go ahead.

14 A And is the chemistry of the soils consistent  
15 with taking up copper, phosphorus, zinc, arsenic  
16 from poultry waste.

04:35PM

17 Q Dr. Fisher, as a scientist working on this  
18 case, you were not interested in identifying the  
19 specific fields that were contaminated with  
20 phosphorus from poultry waste?

04:35PM

21 MR. GARREN: Object as to form.

22 A That wasn't really my charge. My charge was  
23 to look at the population behavior of these soils  
24 and examine whether or not the chemistry of those  
25 soils is consistent with the imbibing or taking up

04:35PM

1 mobilized by waters coming off of fields,  
2 infiltrating or running off, that those samples  
3 identified and form a data array that, in fact,  
4 seamlessly blends with the groundwater array. So  
5 what that says is those samples in the groundwater,

05:04PM

6 a groundwater, which are sitting here in this  
7 probably midrange of copper and zinc, are likely  
8 contaminated. So the groundwater and the edge of  
9 field samples meld together, and so the material

10 from edge of field or from this runoff or

05:04PM

11 infiltrating stuff is consistent with the  
12 concentration arrays that we see in groundwater. So  
13 I can't point to a specific site and say, yeah, that  
14 one is contaminated. I haven't done that. I can do  
15 it. I have not done it.

05:04PM

16 Q If I asked you to circle the sampling  
17 locations that you believe based on your analysis of  
18 edge of field samples and ratios of phosphorus, zinc  
19 arsenic and copper, you are contaminated with  
20 poultry waste, you could not do that today?

05:04PM

21 A Not on a map, no.

22 Q What about on these charts; could you do that  
23 on Figure 22?

24 A I might be able to do it on the charts. I  
25 think I'd prefer to -- if I was doing a sample by

05:04PM

1 sample, it would be a different type of analysis.

2 Q Different than what you've completed to date?

3 A That's correct.

4 Q So you have not come to your opinions in this

5 case prepared to offer that sample location by 05:05PM

6 sample location opinion as to contamination by

7 poultry waste; correct?

8 A That's correct.

9 Q Okay. Your Opinion 24 regarding groundwater

10 contamination is based upon your review of the data 05:05PM

11 shown in Figure 22; is that right?

12 A That's correct.

13 Q Okay. Did you use all of the groundwater and

14 edge of field samples in Figure 22?

15 A I believe I did, yeah. 05:05PM

16 Q Did you use all the spring samples and

17 geoprobe samples?

18 A I believe I did, yes.

19 Q What are the orange squares on Figure 22?

20 A The orange squares are the edge of field 05:05PM

21 samples or maybe midfield samples where there are

22 cattle present.

23 Q Has litter been applied to those locations?

24 A Ostensibly, no. I mean, they're represented

25 to me as having not been applied. 05:06PM

IN THE UNITED STATES DISTRICT COURT FOR THE  
NORTHERN DISTRICT OF OKLAHOMA

W. A. DREW EDMONDSON, in his )  
capacity as ATTORNEY GENERAL )  
OF THE STATE OF OKLAHOMA and )  
OKLAHOMA SECRETARY OF THE )  
ENVIRONMENT C. MILES TOLBERT,) )  
in his capacity as the )  
TRUSTEE FOR NATURAL RESOURCES) )  
FOR THE STATE OF OKLAHOMA, )

Plaintiff, )

vs. )

TYSON FOODS, INC., et al, )

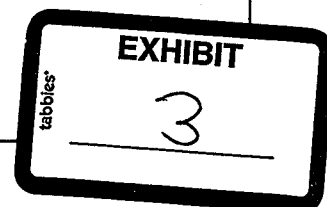
Defendants. )

) 4:05-CV-00329-TCK-SAJ

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THE VIDEOTAPED DEPOSITION OF

BERTON FISHER, PhD, produced as a witness on  
behalf of the Defendants in the above styled and  
numbered cause, taken on the 23rd day of January,  
2008, in the City of Tulsa, County of Tulsa, State  
of Oklahoma, before me, Lisa A. Steinmeyer, a  
Certified Shorthand Reporter, duly certified under  
and by virtue of the laws of the State of Oklahoma.



1 A I would believe so, yes.

2 Q I, as counsel for Peterson Farms, sent some  
3 interrogatories to the State, and I got responses  
4 yesterday or last night, and you're referenced in  
5 them, so let me ask you a couple of questions. One 04:46PM

6 of the questions I asked, and let me ask you to  
7 listen closely to the question, and it's my  
8 Interrogatory No. 1 from my December 21st, 2000

9 (sic) set. For each location where you contend

10 fecal bacteria contamination from poultry waste from 04:46PM

11 any poultry growing operation under contract with

12 Peterson Farms was identified, your answer should

13 include, but not necessarily be limited to,

14 identifying the specific source location, identify

15 the date and location where you contend that fecal 04:46PM

16 bacteria contamination was detected, identify the

17 species and concentration of the fecal bacteria,

18 identify the dates the poultry waste was applied to

19 the source location, and fully describe the basis

20 for your contention that the fecal bacteria 04:46PM

21 contamination derived from poultry waste at the

22 source location. Let me let you look at it. It was

23 long. And the question in non-lawyer terms is, if

24 you contend that any of the bacteria you detected

25 came from a land application site where poultry 04:47PM

1 litter originating in a Peterson contract farm were  
2 applied, tell me what the basis for that contention  
3 is. You're referenced as one of the elements of the  
4 State's evidence in response to that interrogatory.

5 So, Dr. Fisher, tell me, sir, to what extent can you  
6 testify that you have identified any bacterial  
7 contamination at any location within the Illinois  
8 River watershed that has originated from the litter  
9 from a Peterson contract farm in the Illinois River  
10 watershed?

04:47PM

04:48PM

11 MR. PAGE: Object to the form.

12 A We have a circumstance where there is a  
13 coalescence of events, and it's outlined in here.

14 Q Let me have the answer back because I want  
15 your answer, not just the State's.

04:48PM

16 A Well, I'm giving you the answer.

17 Q Okay. Go ahead.

18 MR. McDANIEL: I just don't want him to  
19 read what the lawyers said.

20 A There is a specific Peterson contract grower,  
21 Waymon Rhoads, which is the specific one. Waste  
22 from Waymon Rhoads was observed being loaded there  
23 and carried to a field at a specific location. That  
24 waste was applied at that field. At some time  
25 somewhat removed, not long after, maybe -- I've

04:48PM

04:48PM



1 forgotten the dates, but fairly shortly after,  
2 within maybe one or two weeks, a rainfall event  
3 occurred which resulted in runoff from that field,  
4 which was sampled by an edge of field sample, and  
5 that edge of field sample was found to contain high  
6 levels of bacteria.

04:48PM

7 Q What kind of bacteria?

8 A I'd have to look at the analytical data.

9 Q Is that it?

10 A That's it.

04:49PM

11 Q Okay. Sir, is it --

12 MR. PAGE: Let me object to the form of the  
13 last question. It was ambiguous to me.

14 MR. McDANIEL: The is that it question?

15 MR. PAGE: Yeah.

04:49PM

16 Q Is there anything else to your answer?

17 MR. PAGE: With regard to the interrogatory  
18 question?

19 MR. McDANIEL: Yeah. I'll strike it, I'll  
20 strike it.

04:49PM

21 Q You answered the question and we'll go to the  
22 next question, all right? I'm not trying to waste  
23 time or create confusion. Are you aware of any  
24 regulatory standard, Dr. Fisher, that specifies what  
25 the bacterial limits must or cannot -- excuse me.

04:49PM

1 Let me rephrase this. Are you aware of any state or  
2 federal regulation that limits bacterial counts in  
3 edge of field runoff from agricultural fields?

4 A Yes.

5 Q What is it? 04:50PM

6 A You're prohibited from discharge.

7 Q You can't have any bacteria come off an  
8 agricultural area?

9 A You can't have pollution come off the  
10 agricultural field. 04:50PM

11 Q That wasn't my question. You have to have a  
12 zero bacterial count for agricultural or runoff from  
13 an agricultural field, Dr. Fisher; is that your  
14 testimony?

15 A My testimony is that I'm unaware of any 04:50PM  
16 numeric limit on bacteria in runoff from an  
17 agricultural field. Nonetheless, the extension is  
18 in that -- and my understanding of regulations  
19 within Oklahoma is that -- and that's not within  
20 Oklahoma. That was within Arkansas. That within 04:50PM  
21 Oklahoma you may not discharge pollutants.

22 Q What harm resulted from that edge of field  
23 runoff, Dr. Fisher?

24 MR. PAGE: Object to the form.

25 A Bacteria entered surface waters. 04:50PM

1 Q What surface water?

2 A A drainageway that would lead to a bit larger  
3 drainageways.

4 Q Well, where did -- did you in fact trace that  
5 edge of field runoff into a recognized stream?

04:51PM

6 A That particular parcel of edge of field  
7 runoff?

8 Q Yes, sir.

9 A No.

10 Q You would agree that just because water runs  
11 off one field doesn't mean it makes it all the way  
12 to a stream or tributary in the Illinois River  
13 watershed; right?

04:51PM

14 A Well, I don't know how else water gets into  
15 the Illinois River watershed or streams or  
16 tributaries except by two mechanisms, runoff from  
17 fields and other land surfaces and groundwater  
18 supply.

04:51PM

19 Q How far was that field away from a recognized  
20 tributary or stream?

04:51PM

21 MR. PAGE: Object to the form.

22 A I'd have to look at the map to answer that  
23 question.

24 Q Let me ask a more basic question because  
25 apparently my prior question wasn't very good.

04:51PM

1 movement of ground water.

2 Q All right. Let's not debate that point.

3 The -- has the State to your knowledge done anything

4 to trace the bacteria in that edge of field runoff

5 to any waters of the state?

04:53PM

6 A I don't know.

7 Q And based upon your answer, that's the only

8 circumstance you can cite that is responsive to the

9 interrogatory I questioned you --

10 MR. PAGE: Object to the form.

04:53PM

11 A That's the only one I was aware of when that

12 question was posed to me.

13 Q Let me follow up on Mr. George's question.

14 Have you ever observed Peterson Farms, Incorporated

15 spreading poultry litter in the Illinois River

16 watershed?

04:53PM

17 A Personally? Any observation?

18 Q Have you observed it or received a report that

19 it has occurred?

20 A I have observed or we have had reports of

04:54PM

21 observations of waste from Peterson Farms growers

22 being spread in the Illinois River watershed. Those

23 reports include at least the report we just cited,

24 which is from an investigator, and in addition to

25 that, the Oklahoma Department of Agriculture, Food &

04:54PM

IN THE UNITED STATES DISTRICT COURT FOR THE  
NORTHERN DISTRICT OF OKLAHOMA

W. A. DREW EDMONDSON, in his )  
capacity as ATTORNEY GENERAL )  
OF THE STATE OF OKLAHOMA and )  
OKLAHOMA SECRETARY OF THE )  
ENVIRONMENT C. MILES TOLBERT,) )  
in his capacity as the )  
TRUSTEE FOR NATURAL RESOURCES)  
FOR THE STATE OF OKLAHOMA, )

Plaintiff, )

vs. )

TYSON FOODS, INC., et al, )

Defendants. )

4:05-CV-00329-TCK-SAJ

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THE VIDEOTAPED DEPOSITION OF  
GORDON JOHNSON, PhD, produced as a witness on  
behalf of the Defendants in the above styled and  
numbered cause, taken on the 18th day of August,  
2008, in the City of Tulsa, County of Tulsa, State  
of Oklahoma, before me, Lisa A. Steinmeyer, a  
Certified Shorthand Reporter, duly certified under  
and by virtue of the laws of the State of Oklahoma.

EXHIBIT

tabbles

4

1 Arkansas Natural Conservation Commission Registry or  
2 it may be named something else, I'm not sure without  
3 looking at it, I think those soil test values are  
4 from nutrient management plans.

5 Q All right.

09:44AM

6 A But I haven't seen the nutrient management  
7 plans.

8 Q Okay. Other than soil test results that were  
9 reported to the State of Arkansas, which you then  
10 saw a summary of that information --

09:44AM

11 A Yes.

12 Q -- my question is about the nutrient  
13 management plans, the documents themselves. Whether  
14 it's called an animal waste management plan or a  
15 nutrient management plan or a comprehensive nutrient  
16 management plan, the plans themselves, did you draw  
17 from or rely on any information in those plans for  
18 any poultry growers in the Illinois River watershed  
19 in forming your opinion?

09:44AM

20 A I don't believe so. I mean, I have seen some  
21 of those nutrient management plans, but if I had  
22 relied upon them, I would have identified that in my  
23 report I believe.

09:45AM

24 Q Now, on this Exhibit 1, if I understand the  
25 methodology here, the total acreage for each land

09:45AM

1 voluntary?

2 A I don't know what number you would identify  
3 with a significant number of fields. If you would  
4 identify percentage --

5 Q All right. Let me try asking a better 01:56PM  
6 question then. With the exception of the people who  
7 are required to sample before they put poultry  
8 litter down, for the remaining fields the question  
9 of whether or not to sample is voluntary?

10 A Yes. 01:56PM

11 Q And it does cost some money to have samples  
12 analyzed; is that true?

13 A Yes. I know that for a fact for Oklahoma. I  
14 don't know if the -- I don't know what the fee is in  
15 Arkansas. 01:57PM

16 Q Now, again, with reference to the publicly  
17 available datasets for Oklahoma and Arkansas, have  
18 you attempted to correlate any of the samples to  
19 nutrient management plans or animal waste management  
20 plans issued to poultry growers in the Illinois 01:57PM  
21 River watershed?

22 A If you're asking if I attempted to do a  
23 statistical correlation, the answer is no.

24 Q Have you attempted to identify which of the  
25 samples in the publicly available dataset came from 01:57PM

1 lands for which there has been a nutrient management  
2 plan or animal waste management plan written?

3 A No.

4 Q With regard to the fields that are -- that  
5 have been sampled in this publicly available

01:57PM

6 dataset, have you made any attempt to determine  
7 which of the fields cannot receive poultry litter  
8 due to restrictions in Oklahoma or Arkansas law?

9 A I think that's -- we've already covered that  
10 or I've answered that in an earlier question because  
11 the information that would be required to make that  
12 assessment is not provided in the information that  
13 comes with the soil sample, nor does the analysis  
14 provide any of that information.

01:58PM

15 Q So is the answer to my question no?

01:58PM

16 A So the answer is no. I mean, you don't get  
17 enough information either submitted with the sample  
18 or from the analysis to identify whether the slope  
19 is more or less than 15 percent, for example.

20 Q Now, do you know what percentage of the

01:58PM

21 638,000 acres of agriculture land in the Illinois  
22 River watershed is represented by this Oklahoma and  
23 Arkansas publicly available soils data?

24 MR. NANCE: Object to the form.

25 A I believe it's probably all represented.

01:59PM



1 that this same group of scientists with USDA  
2 identified watersheds at risk and that the Illinois  
3 River watershed was one of the primary ones in the  
4 U.S.

5 Q All right. Through the work that you've done  
6 in this case, isn't it true that you've not  
7 identified a single field receiving poultry litter  
8 in the Illinois River watershed that has contributed  
9 to pollution of the waters of the state of Oklahoma?

03:44PM

10 A That's true.

03:44PM

11 MR. McDANIEL: Let's take our little break.

12 VIDEOGRAPHER: We're now off the Record.

13 The time is 3:44 p.m.

14 (Following a short recess at 3:44 p.m.,  
15 proceedings continued on the Record at 3:55 p.m.)

03:55PM

16 VIDEOGRAPHER: We are back on the Record.

17 The time is 3:56 p.m.

18 Q Dr. Johnson, if you'd refer to your expert  
19 report, Page 10, you began a discussion about -- I  
20 don't know if you want to call it soil phosphorus  
21 depletion or decrease, whatever term suits you, but  
22 first off, help me understand why this theory about  
23 depletion and how long it was going to take, what  
24 does that have to do with the issues in this case to  
25 your knowledge?

03:56PM

03:56PM

IN THE UNITED STATES DISTRICT COURT  
FOR THE NORTHERN DISTRICT OF OKLAHOMA

W. A. DREW EDMONDSON, in	)	
his capacity as ATTORNEY	)	
GENERAL OF THE STATE OF	)	
OKLAHOMA and OKLAHOMA	)	
SECRETARY OF THE ENVIRONMENT	)	
C. MILES TOLBERT in his	)	
capacity as the TRUSTEE FOR	)	
NATURAL RESOURCES FOR THE	)	
STATE OF OKLAHOMA,	)	
	)	
Plaintiff,	)	
	)	
vs.	)	No. 05-CV-00329-GKF-PJC
	)	
TYSON FOODS, INC, et al.,	)	
	)	
Defendants.	)	

VIDEOTAPED DEPOSITION OF TERRY PEACH,  
before the undersigned Certified Shorthand Reporter,  
taken on behalf of the Defendants, at the Attorney  
General, 313 Northeast 21st Street, Oklahoma City,  
Oklahoma, commencing at 9:06 a.m., on April 10, 2009,  
pursuant to the stipulations of the parties.

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NICHOLE M. MYERS, RPR, CSR #1704

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Two Main Plaza

616 South Main, Suite 302

Tulsa, Oklahoma 74119-1261

(918) 585-9969 \* \* \* FAX (918) 585-9955

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1 testify that the farmers in the IRW generally are  
2 concerned with the environment?

3 A. Yes, sir.

4 Q. If asked you will testify that you are not  
5 aware of any violation of any Oklahoma law or  
6 regulation by any Defendant in this proceeding in the  
7 IRW?

8 MR. HAMMONS: Object to the form. All  
9 these have been asked and answered before.

10 A. Yes, I'm not aware of any. But again, you  
11 need to ask Dan Parrish for that direct answer.

12 MR. SANDERS: All right. Because of the  
13 time constraints that we have, I'm going to pass the  
14 witness at this point. But if we reconvene, I do  
15 have other questions I'd like to ask.

16 MR. HAMMONS: Okay.

17 MS. TUCKER: Do you need to take a break?

18 A. No, I'm fine. We're through with 6 and 2?

19 CROSS-EXAMINATION

20 BY MS. TUCKER:

21 Q. Secretary Peach, I'm K. C. Tucker, and I  
22 represent -- oh, sorry. I represent the George's  
23 Defendants in this matter. I think earlier you said  
24 that you had either been on a phone call or in a  
25 meeting with some of the State's retained experts in

1 administrative penalty persistent to Section 2-18 of  
2 the title. The person to whom the order is directed  
3 shall fully comply with the order of the Board and  
4 pay a fine and other costs assessed."

5 Q. Has there been any finding under that  
6 particular section of any pollution to the waters in  
7 the Illinois River watershed --

8 MR. HAMMONS: Object to the form.

9 Q. (By Mr. Hixon) -- of any Defendant in  
10 this case?

11 MR. HAMMONS: Object to the form.

12 A. I can't specifically answer that question.  
13 That's a question you have to ask Mr. Dan Parrish.

14 Q. (By Mr. Hixon) Okay. What is your  
15 relationship as the Commissioner and Secretary of  
16 Agriculture to the State Board of Agriculture?

17 A. I'm the president of the Board.

18 Q. And what is Mr. Parrish's relationship to  
19 the State Board of Agriculture?

20 A. He's the director of the Agricultural  
21 Environmental Management Services Division which  
22 oversees CAFO, large animal feeding operations, and  
23 poultry act.

24 Q. Okay. That -- it's my understanding that  
25 that's part of the Department of Agriculture; --

1 A. Yes, sir.

2 Q. -- is that correct? State Board of  
3 Agriculture is a separate body?

4 A. Is the governing board.

5 Q. This -- as I understood that section that  
6 is a responsibility of the State Board of  
7 Agriculture?

8 A. Yes.

9 Q. Okay. Does Mr. Parrish hold a position on  
10 the State Board of Agriculture?

11 A. No, he does not. He's the director. But  
12 he's the one that can say has there ever been one.

13 Q. Do you --

14 A. My tenure is only from March of 2003 to  
15 present.

16 Q. Okay. During your tenure has there been  
17 any action taken against any poultry operation under  
18 that Section B that you just read?

19 MR. HAMMONS: Object to the form.

20 A. Are we talking about any one poultry  
21 grower?

22 Q. (By Mr. Hixon) I'm talking about against  
23 any one poultry grower or anyone else.

24 A. Without reviewing the file I could not  
25 answer that question.

1 Q. Okay. Has there been any finding of any  
2 pollution against the poultry industry under that  
3 particular section?

4 MR. HAMMONS: Object to the form.

5 A. The industry?

6 Q. (By Mr. Hixon) The industry.

7 A. No.

8 Q. Would that section give you jurisdiction  
9 to make that determination against the industry?

10 MR. HAMMONS: Object to the form.

11 A. No, our jurisdiction would be over the  
12 growers.

13 Q. (By Mr. Hixon) So, for example, my  
14 client, Peterson Farms, who no longer has any kind of  
15 contract poultry growing operations in the Illinois  
16 River watershed, you would have no jurisdiction over  
17 Peterson Farms under that particular --

18 A. Where they do not own production  
19 facilities, no.

20 Q. And if Peterson Farms did have a contract  
21 grower in the Illinois River watershed and there was  
22 a finding of a violation of that provision who -- who  
23 would ODAFF take action against?

24 A. We would regulate the grower.

25 Q. The grower. Okay. Has the state of

IN THE UNITED STATES DISTRICT COURT FOR THE  
NORTHERN DISTRICT OF OKLAHOMA

W.A. DREW EDMONDSON, in his )  
capacity as ATTORNEY GENERAL )  
OF THE STATE OF OKLAHOMA and )  
OKLAHOMA SECRETARY OF THE )  
ENVIRONMENT C. MILES TOLBERT, )  
in his capacity as the TRUSTEE )  
FOR NATURAL RESOURCES FOR THE )  
STATE OF OKLAHOMA, )

Plaintiff, )

vs. )

4:05-CV-00329-TCK-SAJ

TYSON FOODS, INC., et al., )

Defendants. )

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VIDEO DEPOSITION OF JOHN LITTLEFIELD,  
produced as a witness on behalf of the Defendants in  
the above styled and numbered cause, taken on the  
2nd day of August, 2007, in the City of Tulsa,  
County of Tulsa, State of Oklahoma, before me, Karla  
E. Barrow, a Certified Shorthand Reporter, duly  
certified under and by virtue of the laws of the  
State of Oklahoma.

EXHIBIT

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1 Q Okay. To your knowledge, has Mr. Saunders  
2 done anything on his property that's resulted in the  
3 runoff of poultry waste?

4 A Not to my knowledge.

5 Q To your knowledge, has Mr. Saunders done  
6 anything to result in the discharge of poultry  
7 waste?

8 A Not to my knowledge.

9 Q To your knowledge, Mr. Littlefield, has Mr.  
10 Saunders done anything on his property to cause the  
11 contamination of the waters of the State of  
12 Oklahoma?

13 A Not to my knowledge.

14 Q All right. Let me -- we're done with that  
15 one, sir. Let me hand you a list that I marked as  
16 Exhibit 16. What this is, Mr. Littlefield, is I'll  
17 represent to you that I believe that this is the  
18 list -- a list of poultry growers in Oklahoma in the  
19 Illinois River watershed that currently have a  
20 contract with Peterson Farms. So my first question  
21 is, can you identify any of these growers for whom  
22 you are the regular inspector? We've already --  
23 we've already talked about the Two-Saun Farm next to  
24 the bottom. Are there any of the others that are  
25 your growers?



1 A All of them except Jeff Tanners -- Andrews,  
2 Andrews, and Anita.

3 Q Okay. So Jeff Andrews in Rose and Anita  
4 Andrews in Kansas are not within your district?

5 A Yes, sir.

6 Q Everyone else is? Okay. So Dennis  
7 Chamberlain, Diamond S Farms --

8 A Diamond S Farms, what do you -- are you  
9 acquainted with what the owner of that one is?

10 Q If I can answer, I will. I don't have the  
11 person's name. It's on Route 1, Box 345, Colcord.

12 A That's the only one I have any question about.

13 Q It's got three houses, three houses on that  
14 operation.

15 A That would be the only one that I'd have any  
16 question about, but I know the others personally,  
17 and I probably know him.

18 MR. ELROD: I'm sorry, would you restate  
19 who these people are?

20 MR. McDANIEL: Current Oklahoma Illinois  
21 River watershed growers under contract with Peterson  
22 Farms.

23 Q (By Mr. McDaniel) Okay. Now that we've gone  
24 back and forth, you're certain that Anita Andrews  
25 and Jeff Andrews are not yours?

1 A Yes.

2 Q You have a question with regard to Diamond S?

3 A That's right.

4 Q All right. Can I see your copy of that? And  
5 what I'm going to do is I'm going to draw a line  
6 through these two names, you can still read them,  
7 but I'm going to draw a line through them, and then  
8 I'm going to put a question mark by Diamond S, and  
9 tell me if by doing that, I've fairly represented  
10 your testimony about that list?

11 A Yes.

12 Q Okay. Now, with regard to the ones that you  
13 are aware are within your district, everyone except  
14 Anita Andrews, Jeff Andrews, and I'm not going to  
15 ask you about Diamond S Farms, everybody else on  
16 that list, to your knowledge -- let's see, one, two,  
17 three, four, five, six -- to your knowledge, have  
18 any one of these Oklahoma poultry growers done  
19 anything to cause the contamination of the waters of  
20 the state of Oklahoma?

21 A Not to my knowledge.

22 Q Are you aware of any poultry grower under  
23 contract with Peterson Farms, Inc. that has caused  
24 the contamination of the waters of the state of  
25 Oklahoma in the Illinois River watershed?

1 A To what I know, no.

2 Q Any grower ever, to your knowledge under  
3 contract with Peterson Farms, is your answer still  
4 not to your knowledge?

5 A Yes, sir.

6 Q Okay. The complaint investigation part of  
7 your job, we've talked about odor complaints. What  
8 other types of complaints do you have to respond to,  
9 just by category?

10 A Well, application rate, spreading too close to  
11 swales or water, you know, contamination, that's  
12 mentioned a lot, applying too close to waters of the  
13 State, overapplying.

14 Q Every -- you talked about it this morning, so  
15 I don't want to waste time going through it again,  
16 but in order for you to act on a complaint, you have  
17 to receive some directive from Oklahoma City; is  
18 that true?

19 A That's right.

20 Q All right. So once -- are you given a  
21 specific directive, please go look, see what you  
22 find, in other words, you're told what is needed?

23 A There is a complaint -- the protocol is they  
24 have a complaint form that's filled out.

25 Q Okay.